# SEAT BELT & MOTORCYCLE HELMET SURVEY

NOVEMBER 2012

#### Prepared for:

## Mississippi Governor's Office of Highway Safety

Division of Public Safety Planning Mississippi Department of Public Safety

#### Prepared by:

### J.W. Landrum Observational Survey Laboratory

David R. Parrish, Caroline Coleman, Cameron Higdon & Meagan McNeil

MISSISSIPPI STATE











# CONTENTS

- 1 Introduction
- 3 Seat Belt Survey Methodology
- 5 Section One
  Pre-campaign observational seat belt results
- 7 Section Two
  Post-campaign observational seat belt results
- Section Three
  Belt use before and after intervention
- Section Four
  Motorcycle helmet use
- 27 Summary





A PDF Version of this report can be found at the Public Safety Data Laboratory website:

PSDL.SSRC.MSSTATE.EDU



## INTRODUCTION

Mississippi has benefited from a primary seat belt law for over six years. In May of 2006, Mississippi passed a primary seat belt law making it lawful for an officer to stop and ticket a vehicle driver for no other reason than not using a seatbelt. The officer may also ticket the driver for unbelted passengers in the front seat of a vehicle. This small victory in public safety has resulted in increased seat belt usage rates for the state and thereby theoretically saved the lives of a number of Mississippi motorists.

The National Highway Traffic Safety Administration (NHTSA) estimated 32.310 motor vehicle traffic fatalities in the United States in 2011. This estimate represents a 1.7 percent decrease from the previous year's fatality count of 32,885. It also replaced the previous year's fatality count as the lowest number of recorded motor vehicle traffic fatalities since 1949. The reduction in vehicle traffic fatalities over the last several years could be attributed to factors such as the economy, unemployment, vehicle improvements and highway safety programs. However, despite the significant reduction, fatal crashes have claimed many lives over the years. They continue to claim an average of 88 lives each and every day in the United States. In terms of a rate estimate NHTSA calculates a national rate of 1.09 fatalities per 100 million vehicle miles of travel in 2011. Compare this figure with a rate of 1.11 fatalities per 100 million vehicle miles traveled in 2010.1

Vehicle safety is a major component in all aspects of vehicle and road designs. However, it is the behavior of the driver and passengers with respect to belt use that ultimately determines the probability of survival in most vehicle crashes. A great number of fatalities may have been avoided if proper vehicle restraints had been used at the time of the crashes. NHTSA estimated, from 1975 to 2010, safety belts saved 280,486 lives of vehicle occupants age five and older – with 12,546 of those estimated lives saved in 2010 alone.<sup>2</sup>

NHTSA reports Mississippi's 2010 traffic fatality rate as being 21.58 fatalities per 100,000 population. Mississippi's rate was over twice the national average of 10.63.3 This disturbing fatality rate is mirrored by the 630 lives lost in Mississippi in 2011.<sup>4</sup> Although significant increases have been observed in seat belt usage since the primary law was passed, the fatality rate due to automobile crashes in Mississippi is still staggering. Perhaps one contributing factor for this is the state's continuous lag behind several other states in occupant protection practices and, likewise, the belt use national average. Mississippi had an estimated 82 percent seat belt usage rate in 2011. The national average was 84 percent. Last year 13 states had a lower belt usage rate than Mississippi – from Virginia at an 81.8 percent belt use rate down to Massachusetts at a 73.2 percent belt use rate. Over the past few years, Mississippi has climbed from near the bottom of the rankings to a more positive behavioral notch in seat belt usage. However, it should be noted that eight of the 13 states below Mississippi's rate do not have a primary seat belt law. New Hampshire remains as the last state in the nation to not have any form of seat belt law.<sup>5</sup>

For the past 11 years Mississippi has participated in a major effort conducted under the term "Click It or Ticket" (CIOT) during Memorial Day mobilizations. These efforts have been an attempt to increase seat belt awareness and use by implementing a number of phases. The first of these phases was an earned media phase including public service announcements, brochures and newspaper articles that were introduced to the Mississippi public. After two weeks of earned media, an extensive paid media campaign began the second phase. The third and final phase was a statewide law enforcement blitz that increased the intensity of seatbelt law enforcement throughout the state. All law enforcement agencies participated in this increased level of enforcement by using road blocks as well as saturated patrolling efforts.

In 2012, two observational seat belt surveys were conducted by the Social Science Research Center at Mississippi State University. One survey was conducted prior to media and law enforcement intervention. This pre-campaign survey was a test of the recently NHTSA-

approved survey design that contains the official sample for the 2013 post-campaign survey cycle. This pre-CIOT survey consisted of 173 sites in 16 counties. Eight of the 16 counties are new and have not been surveyed in the recent past. The follow-up, or post-campaign survey, in 2012 utilized the design that has been in place since 2008. It includes observations from 168 sites in 16 counties and produced the official seat belt usage rate for Mississippi in 2012. This survey was conducted following all law enforcement and media interventions. Preusser Research Group, Inc. (PRG) assisted SSRC in the data analysis phase of the project.











In 2010, Mississippi's traffic fatality rate was 21.58 fatalities PER 100,000 MISSISSIPPIANS. MISSISSIPPI'S rate was over twice the national average of 10.63.

<sup>1</sup>NHTSA Traffic Safety Facts – Early Estimates of Motor Vehicle Traffic Fatalities in 2011; May 2012 (DOT HS 811 604)

<sup>2</sup>NHTSA Traffic Safety Facts 2010 Data – Overview; June 2012 (DOT HS 811 630)

<sup>3</sup>NHTSA State Traffic Facts Mississippi 2006 – 2010 (http://www-nrd.nhtsa.dot.gov)

<sup>4</sup>Mississippi Department of Public Safety, 2012

<sup>5</sup>NHTSA Traffic Safety Facts – Seat Belt Use in 2011 – Use Rate in the States and Territories - August 2012 (DOT HS 811 651)

# SEAT BELT SURVEY METHODOLOGY

The seat belt and motorcycle survey for Mississippi uses a multi-stage area probability approach. In the first stage, an appropriate number of sampling units are randomly selected. The primary sampling unit for the Mississippi survey is the county. The least populated counties, approximately 15 percent of the state's population, are excluded from the sampling process. The survey was conducted in 16 Mississippi counties containing approximately 47 percent of the state's population.

Special thanks to Preusser Research Group (PRG) for their assistance in the development of this methodology and continuing technical expertise.



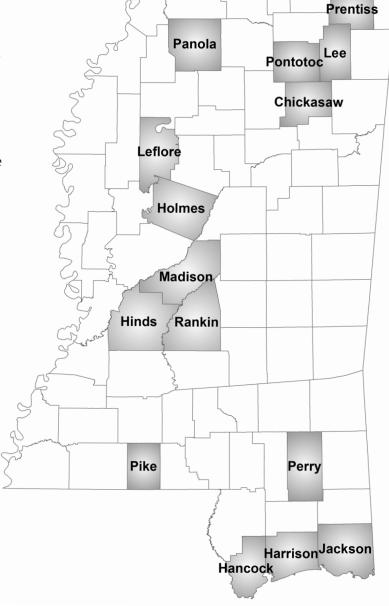
Further details on the sampling methodology of the survey can be found in the document "PROPOSAL FOR MISSISSIPPI OBSERVATIONAL SURVEYS OF SAFETY BELT AND MOTORCYCLE HELMET USE" prepared by David R. Parrish (SSRC), Mark G. Solomon (PRG), William A. Leaf (PRG), Jarryl B. Ritchie (SSRC) and Katie Holland (SSRC). This methodology was approved by NHTSA in 2008 and can be obtained from the Social Science Research Center at Mississippi State University, P.O. Box 5287 Mississippi State, MS 39762, or by contacting Mr. David Parrish at (662) 325-8116 or david.parrish@ssrc.msstate.edu.

## SUMMARY OF SAMPLING METHODOLOGY

- A. Five counties were selected as certainty counties because they had populations much larger than other Mississippi counties. These counties also comprise nearly 30 percent of the state's population. The certainty counties were Hinds, Harrison, DeSoto, Jackson and Rankin.
- B. Thirty-four of the least populated counties, whose combined population accounted for only 15 percent of the state's population, were eliminated from the sampling frame.
- C. Sampling was done without replacement. In addition to the five certainty counties, 11 other counties were chosen. Thus, the sample consisted of 16 counties.
- D. The sample included 168 40-minute observation periods at 168 pseudo-randomly chosen road segment locations. Each road segment within a county was randomly chosen with probability of being chosen proportionate to the VMT (vehicle miles traveled) of the road segment. The five certainty counties were allotted 16 observation periods, while the remaining 11 counties were allotted eight observation periods each.
- E. The qualifying route segments comprising the sampling population are identified from the Mississippi Department of Transportation (MDOT) Roadway Characteristics File.
- F. The route segments from each of the survey counties are stratified into the following four groupings using MDOT functional classification data: (1) Interstates and Other Expressways, (2) Other Principal Arterials, (3) Minor Arterials and (4) Collectors.
- G. For a given county, segments were pseudo-randomly chosen from each of the four strata.
- H. For each certainty county, the 16 sites were grouped by proximity into two clusters of eight sites each.
- I. For each cluster (certainty counties have two eight-site clusters, other counties have one eight-site cluster) a day of the week was randomly chosen. All days of the week were eligible for selection.
- J. Once a site was assigned a day of the week, observation times between 8 a.m. and 6 p.m. were randomly chosen in hourly increments.
- K. Direction of observation was randomly assigned for all 168 sites.
- L. Observers were instructed to observe from a site using the assigned direction for a period of 40 minutes.
- M. The sampling frame includes counting all passenger vehicles, sports utility vehicles, vans and pickup trucks. Other vehicles, such as large buses, larger trucks and farm equipment are excluded from observation.
- N. One observer is used at each observation site and the shoulder belt use/nonuse of all front seat, outboard occupants of qualifying vehicles is recorded on forms supplied by the SSRC.

## SECTION ONE: PRE-CAMPAIGN OBSERVATIONAL SEAT BELT SURVEY RESULTS

Prior to any media or law enforcement efforts encouraging seat belt usage, a baseline survey was conducted. This survey was administered with intentions of establishing a seat belt usage rate before the CIOT campaign. This pre-CIOT survey also served as a "first-run" test of the newly designed and NHTSA-approved seat belt survey for 2013. Observations from 173 sites in 16 counties make up the baseline survey. Eight of these 16 counties were new to the observational survey, which prompted the test of the survey before its endorsed use next year. These new counties are Chicksaw, Hancock, Holmes, Madison, Panola, Perry, Pontotoc and Prentiss.



**DeSoto** 

#### FIGURE 1: SURVEY COUNTIES

1. Chickasaw 9. Leflore 2. DeSoto 10. Madison 3. Hancock 11. Panola 4. Harrison 12. Perry 13. Pike 5. Hinds 6. Holmes 14. Pontotoc 15. Prentiss 7. Jackson

16. Rankin

8. Lee

The data from this baseline survey was collected between April 9 and May 12, 2012. The counties in the survey include a mixture of different geographical regions where both rural and urban counties are represented. Unlike previous years' design with four road classes representing the state, the survey sample includes five classifications of road segments. Local roads, where number of vehicles observed is often very low, join the representative sample along with interstate / expressways, other principal arterials, minor arterials and collector roads.

TABLE 1: BASELINE SEAT BELT USAGE RATES BY TYPE OF VEHICLE BASELINE SURVEY OF 173 SITES IN 16 COUNTIES

			Ļ
Type of Vehicle	VEHICLES OBSERVED	PERCENT BELTED	1
Passenger Car	7,095	77.7%	-
Pickup Truck	4,025	65.5%	t
SUV	2,855	81.1%	1
Van	1,366	80.3%	(
Total	15,341	74.3%	

Table 1 shows the baseline belt use figures for driver and outside front seat passenger by type of vehicle observed. The overall usage rate for the baseline survey was 74.3 percent. Sports utility vehicles held the highest rate of occupant restraint use with 81.1 percent. Occupants in vans showed restraint use

slightly below the SUV rate at 80.3 percent. Passenger car occupants exhibited a higher than average 77.7 percent belt rate, but pickup truck occupants continue to exhibit extremely low belt use rates in Mississippi. The 65.5 percent belted rate among pickup truck drivers lowers the total baseline average significantly. Seat belt compliance for pickup truck occupants is a considerable problem area for Mississippi, which if addressed could result in a much higher total Mississippi belt use rate.

Table 2: Baseline Seat Belt Usage Rates by Type County BASELINE SURVEY OF 173 SITES IN 16 COUNTIES

County	VEHICLES OBSERVED	PERCENT BELTED
DeSoto	1,607	79.0%
Harrison	1,029	92.7%
Hinds	1,579	72.4%
Jackson	996	92.7%
Rankin	1,843	73.9%
Chickasaw	656	65.0%
Hancock	1,151	77.1%
Holmes	530	81.8%
Lee	1,267	73.1%
Leflore	524	61.7%
Madison	1,105	71.8%
Panola	829	67.8%
Perry	374	75.1%
Pike	717	78.3%
Pontotoc	652	68.4%
Prentiss	482	59.8%
Total	15,341	74.3%

A breakdown of seat belt usage rates by county in the pre-CIOT survey reveals the Mississippi Gulf Coast as the frontrunners with Harrison and Jackson Counties both at 92.7 percent restraint use. Holmes was the only other county that illustrated occupant restraint usage above 80 percent with 81.8 percent restrained. There were eight counties where restraint use was observed to be in the 70 to 80 percent range. Counties that showed less than 70 percent usage were Chickasaw, Leflore, Panola, Pontotoc and Prentiss.

The baseline survey produced a seat belt rate for the state that was six percentage points lower than last year's baseline but comparable to baselines of years past. Compare the

2012 baseline rate of 74.3 percent to the rates in 2011 (80.5 percent), 2010 (76.4 percent), 2009 (74.2 percent), 2008 (73.1 percent) and 2007 (68.9 percent). The 2007 – 2011 baselines were mini surveys of 64 sites in eight counties but in the past have demonstrated the production of baseline belt usage rates that adequately represented the state of Mississippi's pre-CIOT belt use rate. Since the primary seat belt law passed in 2006, Mississippi has consistently shown belt usage rates in at least the low 70 percent range. This year's dip to the baseline rate of 74.3 percent could be the result of the implementation of a newly designed survey or it could be a natural fluctuation in the use of seat belts despite the continuous upward trend.

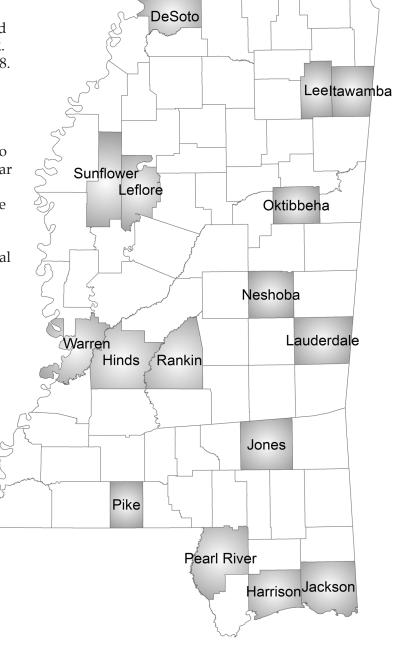
# SECTION TWO: POST-CAMPAIGN OBSERVATIONAL SEAT BELT SURVEY RESULTS

NHTSA allowed each state the choice of using their newly designed survey or their previously approved survey design as the official belt use survey for 2012. Mississippi chose to use the design approved in 2008. It is a proven design that has produced results for the state with very small standard errors year after year. Observational surveyors were familiar with the older sample sites which also contributed to the integrity of the results. A final benefit of the choice to use the 2008 design was the chance to have a full year to analyze the results of the baseline survey which was based on the new design and will be used as the official survey for 2013.

The 2012 post-campaign survey was an observational survey that produced the official seat belt usage rates for the state of Mississippi. Figure 2 shows the counties that frame the 2012 seat belt survey. There were 168 road segments observed in 16 counties.

# FIGURE 2: POST CIOT SURVEYED COUNTIES

DeSoto
 Harrison
 Neshoba
 Hinds
 Oktibbeha
 Pearl River
 Jackson
 Pike
 Ankin
 Lauderdale
 Sunflower
 Warren



The overall result for the 2012 Mississippi Seat Belt Survey is an 83.21 percent occupant seat belt usage rate with a standard error of 0.638 percent. The lower limit of the 95 percent confidence interval is 81.96 percent and the upper limit is 84.47 percent.

#### Table 3: Seat Belt Usage Rates by Road Class

FULL SURVEY OF 168 SITES IN 16 COUNTIES

Road Class	BELT USAGE RATE
Interstates & Other Expressways	88.1%
Other Principal Arterials	84.6%
Minor Arterials	81.3%
Collectors	78.8%

As it has been confirmed by many previous surveys, there is still a clearly defined trend of higher seat belt usage rates on higher traffic count roads. Table 3 shows "interstates and other expressways" leading the road class

categories with an 88.1 percent belt usage rate in 2012. The next level of road category, "other principal arterials," followed with an 84.6 percent belt use rate. The remaining two functional classification divisions (minor arterials and collectors) had very similar rates to one another around the 80 percent mark.

#### Table 4: Seat Belt Usage Rates by Vehicle Class

FULL SURVEY OF 168 SITES IN 16 COUNTIES

VEHICLE	BELT USAGE RATE
Passenger Car/Wagon	86.1%
Pickup Truck	74.2%
SUV	88.2%
Van	88.7%

Table 4 illustrates the breakdown of belt usage rates in four vehicle categories. Passenger cars, sports utility vehicles (SUVs) and vans all had belt use rates in the mid to upper 80 percent range. To no surprise, pickup trucks

were the vehicles with the lowest usage rate at 74.2 percent. This rate is down a couple of percentage points from last year's pickup truck belt rate of 76.5 percent. However, it is a small improvement over a 71.3 percent usage rate two years ago and a tremendous improvement from a 62.3 percent usage rate for pickups in 2008.

The following series of tables (Tables 5-10) provides breakdowns of seat belt use rates by type of vehicle, county, driver/passenger and gender. Unsure observations are omitted in these breakdowns, and the extent of this data narrowing produces more specific results but is of practical use only if the number of observations is significant enough to draw conclusions. Usually, the minimum number of total observations per category should be around 30 before conclusions can be drawn. Many of the figures in this series of tables may not meet this requirement. However, this in-depth breakdown can be used as a loose guide to potential specific problem areas that may deserve attention.



#### Table 5: Seat Belt Usage Rates by County - All Vehicles

FULL SURVEY OF 168 SITES IN 16 COUNTIES

ALL Types of Vehicles by Driver/Passenger and Gender (N = 20,798)

ALL TYPES OF VEHICLES BY DRIVER/ PASSENGER AND GENDER (IN = 20,798)								
COUNTY		Drivers		I	Passengers			
	Male	Female	All	Male	Female	All	All	
DeSoto	67.8%	68.5%	68.2%	62.5%	63.1%	61.6%	66.8%	
n =	1,322	1,010	2,332	259	389	648	2,980	
Harrison	92.3%	99.1%	95.8%	87.4%	100.0%	94.6%	95.5%	
n =	554	553	1,107	165	243	408	1,515	
Hinds	78.0%	87.2%	81.6%	77.2%	90.8%	85.0%	82.4%	
n =	1,471	1,131	2,602	212	325	537	3,139	
Jackson	92.1%	98.2%	94.8%	92.0%	97.2%	94.5%	94.7%	
n =	591	486	1,077	167	219	386	1,463	
Rankin	80.2%	84.8%	81.8%	78.6%	92.1%	87.1%	82.5%	
n =	1,245	798	2,043	167	235	402	2,445	
Itawamba	70.5%	85.5%	76.7%	92.4%	87.5%	88.2%	79.0%	
n =	350	199	549	46	101	147	696	
Jones	79.0%	86.3%	82.2%	84.2%	87.5%	86.7%	83.0%	
n =	466	437	903	81	154	235	1,138	
Lauderdale	87.4%	91.6%	88.6%	81.9%	94.1%	90.4%	89.0%	
n =	546	326	872	88	151	239	1,111	
Lee	70.0%	81.7%	75.2%	70.3%	81.8%	77.5%	75.5%	
n =	503	401	904	85	121	206	1,110	
Leflore	69.6%	81.9%	75.0%	65.3%	82.6%	74.9%	74.5%	
n =	422	313	735	57	43	100	835	
Neshoba	68.5%	82.6%	73.0%	82.6%	85.5%	80.7%	74.4%	
n =	357	241	598	56	71	127	725	
Oktibbeha	79.3%	83.3%	81.0%	72.1%	89.2%	78.2%	80.5%	
n =	437	277	714	69	56	125	839	
Pearl River	82.3%	94.9%	87.2%	80.6%	95.8%	88.8%	87.5%	
n =	575	450	1,025	113	180	293	1,318	
Pike	71.0%	88.3%	79.2%	84.4%	93.9%	85.2%	79.5%	
n =	315	300	615	29	52	81	696	
Sunflower	65.3%	85.6%	76.6%	81.1%	94.8%	91.1%	81.2%	
n =	109	120	229	37	75	112	341	
Warren	93.3%	96.7%	94.4%	94.5%	98.4%	95.2%	94.5%	
n =	255	145	400	31	16	47	447	
TOTAL	79.0%	87.9%	82.8%	80.4%	90.3%	85.4%	83.3%	
N =	9,518	7,187	16,705	1,662	2,431	4,093	20,798	

#### **ENCOURAGING OBSERVATIONS:**

- Counties above 90 percent usage rate for all occupants are Harrison, Jackson and Warren.
- Female drivers and passengers in Gulf Coast Counties (Harrison & Jackson) are exemplary belt users with near a 100 percent usage rate.
- Of the 2,431 female passengers observed, nine out of 10 are buckled.

#### ROOM FOR IMPROVEMENT:

- DeSoto County is the only county universally below 70 percent belt usage rate.
- Male drivers in DeSoto, Leflore, Neshoba and Sunflower show below 70 percent belt usage.
- Male passengers in DeSoto and Leflore show belt usage rates in the low to mid 60 percent range.
- There is a large discrepancy between the belted status of All Drivers and All Passengers in Itawamba (76.7 percent to 88.2 percent) and Sunflower (76.6 percent to 91.1 percent).

#### Table 6: Seat Belt Usage Rates by County - Cars, SUVs & Vans

FULL SURVEY OF 168 SITES IN 16 COUNTIES

CARS + SUVs + VANS BY DRIVER/PASSENGER AND GENDER (N = 15,260)

CARS + SUN		DRIVERS			Passengers		OCCUPANTS
333.111	Male	Female	All	Male	Female	All	All
DeSoto	70.0%	69.8%	70.1%	65.2%	62.6%	62.3%	68.6%
n =	807	929	1,736	163	319	482	2,218
Harrison	94.0%	99.5%	97.0%	87.9%	100.0%	95.0%	96.5%
n =	354	499	853	123	187	310	1,163
Hinds	81.7%	87.5%	84.5%	82.6%	90.9%	88.0%	85.3%
n =	943	1,090	2,033	148	284	432	2,465
Jackson	92.2%	98.5%	95.3%	91.8%	96.0%	93.8%	94.9%
n =	377	420	797	103	165	268	1,065
Rankin	84.5%	86.0%	83.8%	87.0%	91.8%	90.2%	84.2%
n =	669	742	1,411	103	189	292	1,703
Itawamba	79.8%	84.3%	83.3%	98.9%	94.6%	95.7%	85.9%
n =	206	182	388	30	88	118	506
Jones	85.5%	86.4%	85.7%	87.8%	86.6%	87.4%	86.0%
n =	253	403	656	49	130	179	835
Lauderdale	93.1%	92.5%	92.9%	80.4%	94.7%	91.1%	92.7%
n =	312	309	621	63	125	188	809
Lee	76.8%	82.4%	80.0%	75.3%	81.3%	79.8%	79.8%
n =	314	381	695	55	106	161	856
Leflore	71.6%	84.1%	78.5%	67.4%	93.5%	79.2%	78.0%
n =	245	288	533	40	37	77	610
Neshoba	74.5%	83.5%	80.6%	85.3%	89.6%	85.5%	81.6%
n=	168	213	381	34	50	84	465
Oktibbeha	85.8%	83.7%	84.9%	72.3%	92.0%	84.9%	84.9%
n =	234	258	492	37	47	84	576
Pearl River	85.7%	94.9%	90.9%	90.4%	96.4%	93.3%	91.4%
n =	294	399	693	63	137	200	893
Pike	84.1%	89.0%	87.1%	87.8%	93.6%	86.1%	86.6%
n =	173	276	449	20	47	67	516
Sunflower	69.3%	85.3%	79.9%	84.8%	95.2%	93.1%	84.2%
n =	62	111	173	24	64	88	261
Warren	98.1%	97.5%	98.0%	93.7%	100.0%	95.1%	97.7%
n =	165	119	284	24	11	35	319
Total	83.9%	88.5%	86.5	83.5%	91.3%	87.7%	86.7%
N =	5,576	6,619	12,195	1,079	1,986	3,065	15,260
Fueering	CING ORSE			Door	A FOR IMPRO		

#### **ENCOURAGING OBSERVATIONS:**

- Overall belt use without pickup trucks is 86.7 percent.
- Counties above 90 percent usage rate for all occupants are Harrison, Jackson, Lauderdale, Pearl River and Warren.
- Passengers in eight of the 16 counties exhibit belt use rates over 90 percent.
- Female passengers overall exhibit a 91.3 percent usage rate.

#### **ROOM FOR IMPROVEMENT:**

- DeSoto County is the only county below 70 percent across the chart except for male drivers and all drivers, which are 70.0 percent and 70.1 percent respectively.
- Male passengers in Leflore demonstrate a belt use rate of 67.4 percent, which is a stark contrast to the 93.5 percent belt usage rate for female passengers.
- There is a large discrepancy between the belted status of all drivers and all passengers in Itawamba (83.3 percent to 95.7 percent) and Sunflower (79.9 percent to 93.1 percent).

#### Table 7: Seat Belt Usage Rates by County - Passenger Cars

FULL SURVEY OF 168 SITES IN 16 COUNTIES

Passenger cars by Driver/Passenger and Gender (N = 9.442)

I ASSENGER	CARS BY DE		LINGER AND	GENDER (N = 9,442)			
COUNTY		Drivers			<sup>D</sup> ASSENGERS		OCCUPANTS
	Male	Female	All	Male	Female	All	All
DeSoto	68.8%	67.4%	68.5%	63.1%	55.4%	56.8%	66.7%
n =	493	562	1,055	86	182	268	1,323
Harrison	95.1%	99.2%	97.0%	88.1%	100.0%	96.1%	96.8%
n =	283	304	587	79	141	220	807
Hinds	82.3%	87.1%	84.8%	80.1%	87.4%	85.2%	85.2%
n =	575	688	1,263	85	155	240	1,503
Jackson	92.3%	98.2%	94.7%	90.7%	95.9%	93.0%	94.2%
n =	293	268	561	74	117	191	752
Rankin	85.4%	85.3%	83.6%	90.5%	90.3%	90.6%	84.0%
n =	383	429	812	56	98	154	966
Itawamba	73.0%	81.1%	80.1%	98.9%	95.0%	96.5%	83.4%
n =	118	112	230	21	45	66	296
Jones	84.6%	87.7%	86.8%	84.3%	90.0%	91.1%	87.4%
n =	155	258	413	29	79	108	521
Lauderdale	92.5%	90.1%	92.0%	84.0%	91.1%	87.9%	91.8%
n =	179	181	360	39	67	106	466
Lee	75.3%	82.9%	80.0%	82.7%	79.3%	79.2%	79.7%
n =	196	247	443	36	67	103	546
Leflore	68.0%	85.5%	77.7%	59.8%	96.6%	77.8%	76.8%
n =	158	184	342	28	20	48	390
Neshoba	71.9%	79.8%	78.6%	81.1%	90.9%	80.9%	79.4%
n=	94	135	229	21	26	47	276
Oktibbeha	89.3%	82.9%	85.7%	77.4%	91.9%	85.5%	85.5%
n =	146	178	324	28	28	56	380
Pearl River	83.1%	94.4%	89.7%	89.4%	96.0%	92.4%	90.2%
n =	171	252	423	36	78	114	537
Pike	84.0%	91.3%	90.1%	78.9%	98.0%	88.5%	87.8%
n =	106	188	294	13	31	44	338
Sunflower	62.9%	77.9%	71.3%	78.7%	96.0%	92.0%	77.7%
n =	43	74	117	16	40	56	173
Warren	99.8%	96.3%	98.5%	100.0%	100.0%	100.0%	98.5%
n =	97	60	157	4	7	11	168
Total	83.1%	87.6%	85.9%	83.1%	90.8%	87.2%	86.1%
N =	3,490	4,120	7,610	651	1,181	1,832	9,442

#### **ENCOURAGING OBSERVATIONS:**

- With 9,442 observations, overall belt use in passenger cars
- Counties above 90 percent usage rate for all passenger car occupants are Harrison, Jackson, Lauderdale, Pearl River and Warren.
- Female passengers in passenger cars buckle at the rate of 90.8 percent.

#### **ROOM FOR IMPROVEMENT:**

- DeSoto County is the only county universally below 70 percent belt usage rate in passenger cars.
- Female passengers and all passengers in DeSoto County show usage rates of 55.4 percent and 56.8 percent respectively.
- Male drivers of passenger cars in DeSoto, Leflore and Sunflower demonstrate less than 70 percent belt use.
- There is a large discrepancy between the belted status of all drivers and all passengers in Itawamba (80.1 percent to 96.5 percent) and Sunflower (71.3 percent to 92.0 percent).

#### Table 8: Seat Belt Usage Rates by County - Pickup Trucks

FULL SURVEY OF 168 SITES IN 16 COUNTIES

PICKUP TRUCKS BY DRIVER/PASSENGER AND GENDER (N = 5.538)

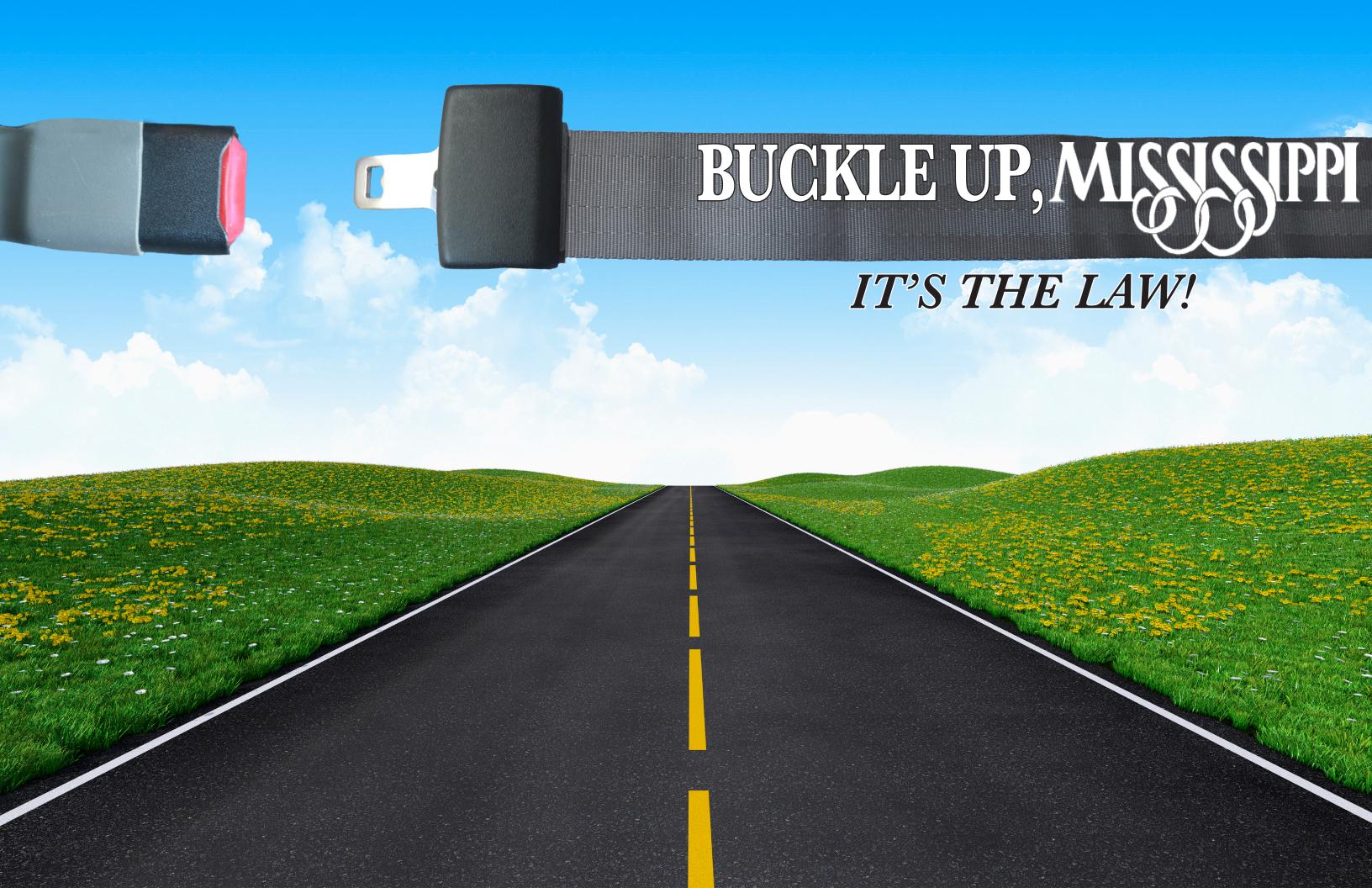
COUNTY		DRIVERS			Passengers			
County	Male	Female	All	Male	Female	All	All	
DeSoto	64.3%	54.2%	62.7%	52.7%	68.2%	62.4%	62.1%	
n =	515	81	596	96	70	166	762	
Harrison	92.1%	95.4%	93.0%	79.2%	100.0%	91.6%	92.8%	
n =	200	54	254	42	56	98	352	
Hinds	72.3%	78.4%	72.8%	61.4%	89.6%	72.4%	72.8%	
n =	528	41	569	64	41	105	674	
Jackson	90.4%	88.8%	93.5%	94.2%	100.0%	95.7%	94.2%	
n =	214	68	280	64	54	118	398	
Rankin	74.5%	74.3%	74.6%	67.5%	94.7%	80.4%	74.5%	
n =	576	56	632	64	46	110	742	
Itawamba	63.8%	98.4%	65.5%	86.1%	79.7%	80.5%	67.9%	
n =	144	17	161	16	13	29	190	
Jones	71.4%	88.8%	72.9%	83.1%	90.8%	85.5%	74.7%	
n =	213	34	247	32	24	56	303	
Lauderdale	76.3%	69.9%	75.9%	89.0%	85.7%	86.0%	76.5%	
n =	234	17	251	25	26	51	302	
Lee	58.5%	60.8%	60.0%	56.7%	77.7%	65.4%	60.9%	
n =	189	20	209	30	15	45	254	
Leflore	67.1%	55.6%	66.3%	60.9%	60.0%	55.4%	65.2%	
n =	177	25	202	17	6	23	225	
Neshoba	64.2%	61.7%	64.0%	62.6%	76.6%	70.1%	64.1%	
n=	189	28	217	22	21	43	260	
Oktibbeha	72.1%	73.9%	72.4%	67.9%	45.5%	64.5%	71.2%	
n =	203	19	222	32	9	41	263	
Pearl River	78.1%	94.1%	79.7%	56.1%	96.0%	74.1%	79.0%	
n =	281	51	332	50	43	93	425	
Pike	56.7%	73.5%	58.6%	76.6%	100.0%	85.0%	59.1%	
n =	142	24	166	9	5	14	180	
Sunflower	65.2%	95.8%	68.2%	69.2%	91.6%	79.0%	71.3%	
n =	47	9	56	13	11	24	80	
Warren	86.7%	95.6%	88.3%	100.0%	85.6%	96.0	89.0%	
n =	90	26	116	7	5	12	128	
Total	73.0%	78.4%	73.9%	72.5%	85.5%	78.4%	74.2%	
N=	3,942	568	4,510	583	445	1,028	5,538	
ENGOLIDA	CINIC ODGE	PVATIONS.		POOM FOR	IMPROVEME	ENIT'		

#### **ENCOURAGING OBSERVATIONS:**

- belt use rates for all occupants at 92.8 percent and 94.2 percent, respectively.
- Female drivers of pickup trucks in Pearl River show a 94.1 percent belt use rate.
- Female passengers of pickup trucks in Rankin and Pearl River Counties also show above 90 percent belt usage rates.

#### ROOM FOR IMPROVEMENT:

- Harrison and Jackson Counties display two model pickup There is an abundance of belt usage rates shown to be below the 70 percent mark for pickup trucks.
  - DeSoto County has extremely poor pickup truck belt use across the board with the worst cases being female drivers at 54.2 percent belt usage and male passengers at 52.7 percent.
  - Overall occupant belt use in pickup trucks is less than 70 percent for DeSoto, Itawamba, Lee, Leflore and Neshoba Counties.
  - Overall occupant belt use in pickup trucks is less than 60 percent for Pike County.



#### Table 9: Seat Belt Usage Rates by County - SUVs

Full Survey of 168 Sites in 16 Counties

SI IVS BY DRIVER / PASSENGER AND GENDER (N = 4.101)

SUVs by Driver/Passenger and Gender (N = 4,101)								
County		Drivers		1	Passengers			
CCCIVII	Male	Female	All	Male	Female	All	All	
DeSoto	67.8%	71.1%	69.9%	68.9%	57.6%	63.9%	68.5%	
n =	233	286	519	45	96	141	660	
Harrison	91.0%	100.0%	97.6%	92.5%	100.0%	96.2%	97.3%	
n =	44	107	151	25	26	51	202	
Hinds	80.8%	85.0%	82.4%	78.9%	92.0%	90.5%	84.6%	
n =	238	302	540	38	105	143	683	
Jackson	87.9%	98.9%	96.8%	93.2%	100.0%	98.2%	96.9%	
n =	44	82	126	19	27	46	172	
Rankin	84.2%	86.0%	83.4%	80.9%	96.4%	93.3%	84.0%	
n =	188	233	421	26	62	88	509	
Itawamba	84.0%	91.1%	90.6%	98.9%	94.6%	94.0%	91.2%	
n =	59	41	110	5	30	35	145	
Jones	86.0%	84.4%	83.8%	98.2%	77.8%	84.9%	84.0%	
n =	75	133	208	12	41	53	261	
Lauderdale	95.1%	94.3%	94.8%	74.4%	100.0%	91.7%	93.6%	
n =	94	94	188	14	39	53	241	
Lee	82.0%	81.1%	81.6%	54.4%	92.5%	84.7%	82.3%	
n =	79	106	185	15	30	45	230	
Leflore	78.6%	78.1%	78.1%	83.0%	86.6%	83.1%	78.4%	
n =	61	88	149	9	13	22	171	
Neshoba	86.1%	89.2%	86.5%	86.2%	93.3%	89.6%	87.3%	
n=	43	55	98	9	14	23	121	
Oktibbeha	76.5%	87.2%	84.9%	63.9%	90.9%	87.6%	85.3%	
n =	63	71	134	6	15	21	155	
Pearl River	93.6%	97.5%	95.5%	94.8%	97.8%	96.7%	95.7%	
n =	88	115	203	19	39	58	261	
Pike	83.2%	83.4%	82.2%	100.0%	76.7%	86.9%	82.7%	
n =	51	70	121	6	10	16	137	
Sunflower	100.0%	100.0%	100.0%	89.2%	95.2%	93.5%	97.9%	
n =	14	32	46	6	19	25	71	
Warren	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
n =	35	40	75	3	4	7	82	
TOTAL	86.4%	89.3%	88.1%	84.2%	91.1%	89.9%	88.2%	
N =	1,409	1,865	3,274	257	570	827	4,101	

#### **ENCOURAGING OBSERVATIONS:**

- Overall belt use for SUVs is 88.2 percent with 4,101 observations.
- Seven of the 16 counties have overall belt use rates for SUVs over 90 percent. Five of those counties show over 95 percent belt usage.
- Several 100 percent belt usage rates can be seen with number of observations greater than 30.
- Warren County had 100 percent seat belt compliance for SUVs on 82 observations.

#### ROOM FOR IMPROVEMENT:

- Overall, DeSoto County is below 70 percent belt use rate for SUV occupants.
- There is a large discrepancy between the belted status of all drivers and all passengers in Rankin County (83.4 percent to 93.3 percent).

#### Table 10: Seat Belt Usage Rates by County - Vans

FULL SURVEY OF 168 SITES IN 16 COUNTIES

Vans by Driver/Passenger and Gender (N = 1,717)

	ANS BY DRIVER/ FASSENGER AND GENDER (IN -				OCCUDANTS		
COUNTY		Drivers			PASSENGERS		OCCUPANTS
	Male	Female	All	Male	Female	All	All
DeSoto	78.0%	85.8%	80.4%	81.9%	78.9%	81.2%	79.6%
n =	81	81	162	31	41	73	235
Harrison	85.6%	100.0%	96.5%	84.8%	100.0%	87.4%	95.3%
n =	27	88	115	19	20	39	154
Hinds	81.2%	92.0%	84.4%	82.5%	94.1%	89.4%	85.0%
n =	130	100	230	25	24	49	279
Jackson	96.5%	100.0%	97.5%	100.0%	86.4%	88.8%	96.0%
n =	40	70	110	10	21	31	141
Rankin	86.2%	90.3%	86.7%	90.4%	87.4%	85.4%	86.8%
n =	98	80	178	21	29	50	228
Itawamba	80.1%	88.8%	84.5%	100.0%	91.9%	94.0%	86.1%
n =	29	19	48	4	13	17	65
Jones	88.0%	77.4%	83.5%	91.9%	72.5%	70.4%	80.6%
n =	23	12	35	8	10	18	53
Lauderdale	89.3%	96.1%	91.9%	81.7%	96.2%	88.9%	92.5%
n =	39	34	73	10	19	29	102
Lee	70.3%	89.2%	80.9%	59.2%	74.5%	60.9%	79.4%
n =	39	28	67	4	9	13	80
Leflore	94.5%	88.6%	92.6%	81.9%	100.0%	92.7%	92.6%
n =	26	16	42	3	4	7	49
Neshoba	87.9%	95.2%	90.8%	100.0%	100.0%	100.0%	92.7%
n=	31	23	54	4	10	14	68
Oktibbeha	85.3%	74.6%	83.9%	75.0%	100.0%	87.4%	85.5%
n =	25	9	34	3	4	7	41
Pearl River	85.4%	98.3%	91.0%	100.0%	95.9%	98.5%	93.3%
n =	35	32	67	8	20	28	95
Pike	92.4%	64.4%	83.8%	100.0%	84.3%	90.9%	85.5%
n =	16	18	34	1	6	7	41
Sunflower	83.2%	100.0%	94.4%	100.0%	100.0%	100.0%	96.3%
n =	5	5	10	2	5	7	17
Warren	88.8%	100.0%	93.7%	91.1%	0	91.1%	93.3%
n =	33	19	52	17	0	17	69
Total	85.7%	90.4%	88.6%	87.8%	90.5%	87.2%	88.7%
N =	677	634	1,311	171	235	406	1,717

#### **ENCOURAGING OBSERVATIONS:**

- Overall belt use for vans is 88.7 percent with 1,717 observations.
- Although many percentages in this breakdown are based on less than 30 observations and determined not to be representative, the overall usage rate for van occupants is over 90 percent for seven of the 16 counties.
- Jackson County had the most impressive belt usage rate in van occupants.
- Female drivers and passengers have over a 90 percent belt usage rate in vans.

#### **ROOM FOR IMPROVEMENT:**

DeSoto and Lee Counties have the lowest belt use rates for vans at 79.6 percent and 79.4 percent, respectively.

FIGURE 3A: MALE SEAT BELT USAGE RATES BY VEHICLE TYPE & RACE BASELINE SURVEY OF 168 SITES IN 16 COUNTIES

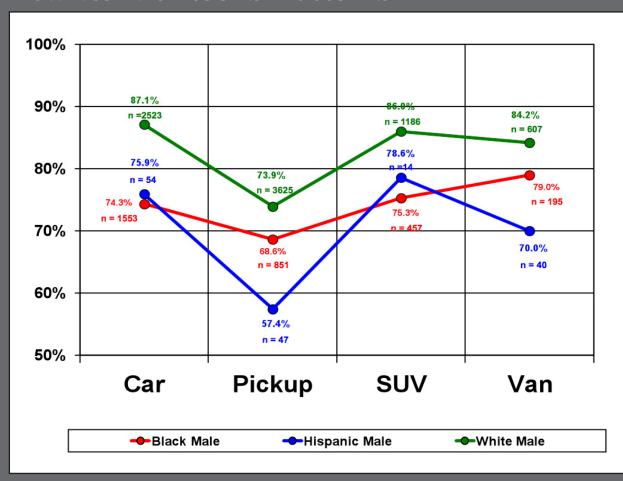
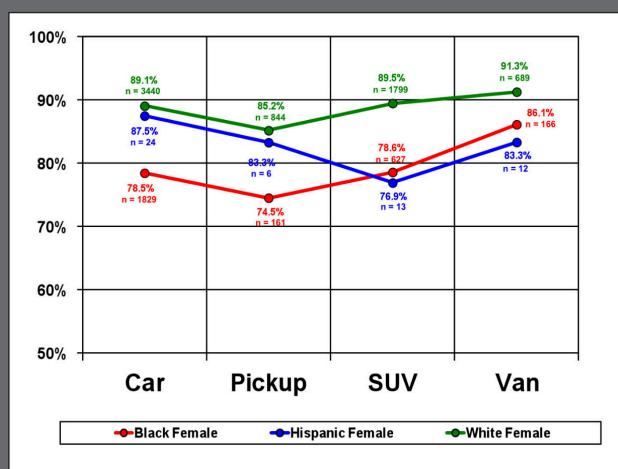


FIGURE 3B: FEMALE SEAT BELT USAGE RATES BY VEHICLE TYPE & RACE BASELINE SURVEY OF 168 SITES IN 16 COUNTIES



CAR

The first column in both graphs shows white males (87 percent) and white females (89 percent) atop the buckled list for passenger cars.

PICKUP

The second column in each graph shows white males (73.9 percent) and black females (74.5 percent) buckling up around the state level rate for pickups in 2012 (74.2 percent).

Figure 3A and Figure 3B are graphic illustrations of how well the observed population buckled up by gender, race and type of vehicle. Figure 3A shows males and Figure 3B shows females. Notice how the black and white trends are almost parallel in both the male and female figures. Hispanic belt use rate is a bit more volatile, which is most likely attributable to low sample sizes. One can see vehicle occupants of both genders who are black tend to lag behind whites when it comes to buckling up in Mississippi.

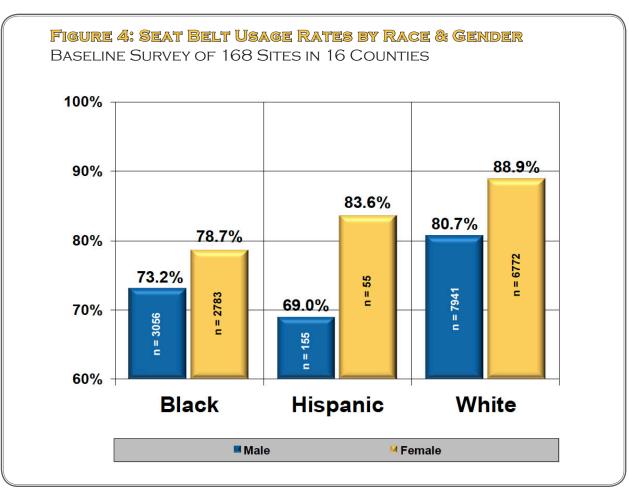
SUV

The third column illustrates SUV belt use range from 75.3 percent (black males) to 89.5 percent (white females). The Hispanic figures are not representative of that motoring population.

VAN

White females in vans have the highest rate of belt use behavior in the state with 91.3 percent of the 689 observed buckling up.

Also, Hispanic males show the lowest rate in pickup trucks with 57.4 percent of the 47 observed using seat belts. A comparison between graphs shows females using vehicle restraints far more than males. In general, the conclusion can be drawn that white females are the most likely group to be using a seat belt restraint in Mississippi. The belt usage rates for Hispanic women in all types of vehicles are based on very low observational sample sizes and cannot be considered accurate.



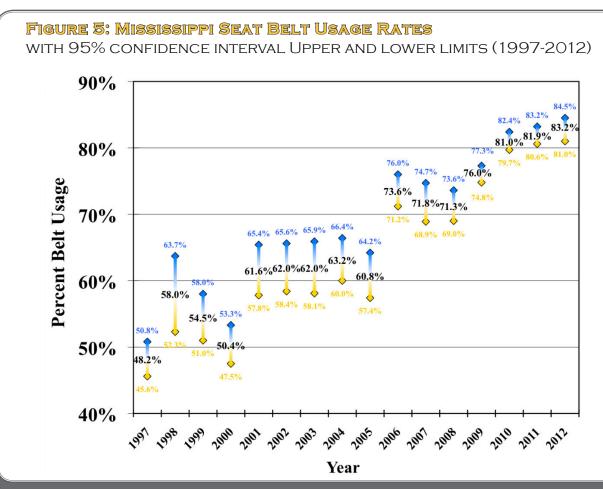


Figure 4 presents an analysis of belt use broken down only by race and gender. This chart reveals that males within each race category lag about five to 15 percentage points behind females when it comes to buckling up. White females are 10 percentage points above black females and 15 percentage points above black males. When compared to last year's numbers, black males decreased in belt use rate about two percent, whereas Hispanic females showed a five percent increase in belt use up to 83.6 percent based on 55 observations. Belt use rate among black females and white males in 2012 stayed close to the 80 percent mark as they did in 2011.

Figure 5 shows a definite upward trend of seat belt usage rates since 1997. Each year displays an official belt use rate and 95 percent confidence interval upper and lower limits. Since the primary seat belt law went into effect in 2006, the trend stayed relatively flat for about three years, as seen by the overlapping of confidence intervals from 2006 to 2009. The rate took a significant positive jump in 2010 to 81.0 percent and small positive incremental increases of less than one percent the past couple of years.

#### FIGURE 6: NATIONAL SEAT BELT USE RATES IN 2011

SOURCE: 2011 NHTSA TRAFFIC SAFETY FACTS: CRASH/STATS DOT HS 811493- JULY 2011

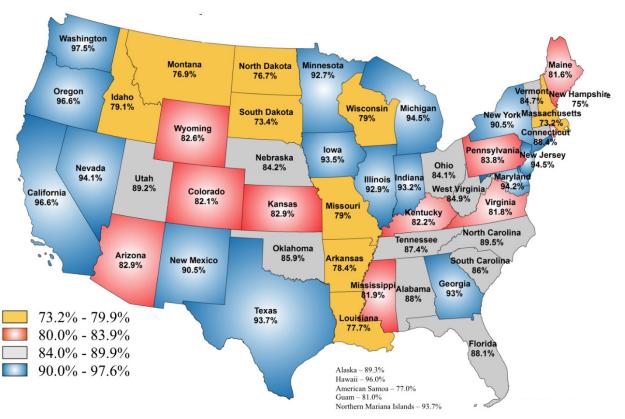


Figure 6 has been included below this trend chart for viewers to gain a geographic sense of Mississippi's peer states with regard to belt use rates in 2010. Mississippi is now in the second tier of states with an overall belt use average over 80 percent. Several states are trailing Mississippi in belt use, as shown on the chart. States colored in gold or light red had seat belt usage rates below the 2011 national average of 84 percent. States in the light gray or blue categories had belt use rates above the national average. The highest belt use states in the nation (above 90 percent) are the blue states.

# SECTION THREE: BELT USE BEFORE AND AFTER INTERVENTION

The comparison of the baseline (or pre-campaign) survey results to the follow-up (or post-campaign) survey may provide officials feedback on where media and enforcement tactics worked in increasing seat belt awareness or changing human behavior with regard to buckling up. Comparative analysis can also give officials direction on what facets of the campaign need to be targeted for altering or strengthening. The following tables and figures illustrate how the campaign may have affected seat belt use throughout the state of Mississippi.

TABLE 11: BASELINE VERSUS FOLLOW-UP COUNTY COMPARISONS

SEAT BELT USAGE RATES BY COUNTY

COUNTY	Percen	T BELTED	PERCENT	PERCENT
COUNTY	Baseline	Follow-up	Change	+ OR -
Chickasaw	65.0%	-	-	-
DeSoto	79.0%	66.8%	-12.2%	-15.4%
Hancock	77.1%	-	-	-
Harrison	92.7%	95.5%	2.8%	3.0%
Holmes	81.8%	-	-	-
Hinds	72.4%	82.4%	10.0%	13.8%
Itawamba	-	79.0%	-	-
Jackson	92.7%	94.7%	2.0%	2.2%
Jones	-	83.0%	-	-
Lauderdale	-	89.0%	-	-
Lee	73.1%	75.5%	2.4%	3.3%
Leflore	61.7%	74.5%	12.8%	20.7%
Madison	71.8%	-	-	-
Neshoba	-	74.4%	-	-
Oktibbeha	-	80.5%	-	-
Panola	67.8%	-	-	-
Pearl River	-	87.5%	-	-
Perry	75.1%	-	-	-
Pike	78.3%	79.5%	1.2%	1.5%
Pontotoc	68.4%	-	-	-
Prentiss	59.8%	-	-	-
Rankin	73.9%	82.5%	8.6%	11.6%
Sunflower	-	81.2%	-	-
Warren	-	94.5%	-	-
Total	74.3%	83.2%	8.9%	12.0%

Comparing pre- and post-campaign seat belt usage numbers in Table 11 is helpful in determining geographic areas that may need special attention in future campaigning. Note for future campaigns that the baseline counties shown will be used in both the baseline and follow-up surveys in 2013 and the foreseeable future. Therefore, this comparative table is partially applicable for planning in eight counties (DeSoto, Harrison, Hinds, Jackson, Lee, Leflore, Pike and Rankin).

**Table 11** shows a **12.0 percent increase** from the baseline to the post-CIOT overall belt usage rate. On a county by county level, the most positive comparison in observed usage is a 20.7 percent increase in belt use for Leflore County. Hinds and Rankin Counties also showed double digit percent increases in belt use over the campaign. DeSoto County, on the other hand, demonstrated a significant decline (-15.4 percent) in belt use from baseline to follow-up.

Table 12: Baseline yersus Follow-up Road Class Comparisons

SEAT BELT USAGE RATES BY ROAD CLASS

VEHICLE	Percent	BELTED	PERCENT	Percent	
VENICLE	Baseline	Follow-up	Change	+ OR -	
Interstates & Other Expressways	86.9%	88.1%	1.2%	1.4%	
Other Principal Arterials	79.6%	84.6%	5.0%	6.3%	
Minor Arterials	75.9%	81.3%	5.4%	7.1%	
Collectors	71.2%	78.8%	7.6%	10.7%	
<b>Local Roads</b>	69.8%	-	-	-	

Comparing before and after belt usage rates by road classification is presented in Table 12. The largest change was a positive change in Collectors (10.7 percent), but all classifications of roads showed increases. These increases suggest the CIOT seat belt awareness message was successful across all road classes. Note local roads were included in the 2012 baseline and will be included in all future surveys.

Table 13: Baseline yersus Follow-up Vehicle Type Comparisons

SEAT BELT USAGE RATES BY VEHICLE TYPE

VEHICLE	PERCENT BELTED		PERCENT	PERCENT	
	Baseline	Follow-up	Change	+ OR -	
Car/Wagon	77.7%	86.1%	8.4%	10.8%	
Pickup	65.5%	74.2%	8.7%	13.3%	
SUV	81.1%	88.2%	7.1%	8.8%	
Van	80.3%	88.7%	8.4%	10.5%	

Table 13 illustrates three out of the four vehicle types showed increases in belt use by more than 10 percent. Pickup truck occupants demonstrated the best response to the campaign by buckling up 13.3 percent more after CIOT. Passenger cars, SUVs and vans also display significantly positive belt use increases, presumably attributable to the efforts of the campaign. However, keep in mind these belt use percentages were generated from two different samples. Therefore, although both representative survey samples have been approved, the sources of the differences could be inherent to the design differences.

Table 14: Baseline yersus Follow-up Race/Gender Comparisons

SEAT BELT USAGE RATES BY RACE AND GENDER

VEHICLE	PERCENT BELTED		PERCENT	PERCENT	
	Baseline	Follow-up	CHANGE	+ OR -	
Black Female	75.6%	78.7%	3.1%	4.1%	
Black Male	67.2%	73.2%	6.0%	8.9%	
Hispanic Female	80.9%	83.6%	2.7%	3.3%	
Hispanic Male	77.4%	69.0%	-8.4%	-10.9%	
White Female	88.0%	88.9%	0.9%	1.0%	
White Male	77.9%	80.7%	2.8%	3.6%	

<sup>\*</sup> BASELINE AND FOLLOW-UP PERCENTAGES ARE NOT WEIGHTED.

In Table 14 the comparison of belt use is across race and gender. Both the baseline and follow-up numbers in this table are unweighted. The CIOT campaign seems to have made a noteworthy difference in the behavior of black males and females. Black males showed an 8.9 percent increase belt use while black females exhibited a less impactful but positive increase of 4.1 percent in belt usage across the campaign. White males and females demonstrated smaller positive increases in belt use of 3.6 percent and 1.0 percent, respectively.

A significantly negative decline in the belt use of Hispanic males (-10.9 percent) is troubling, but larger sample sizes of the Hispanic motoring population is needed before definitive conclusions could be drawn. Likewise, these pre- and post-campaign comparisons may not be representative of the Hispanic motoring population. The Hispanic population in Mississippi is small but will continue to grow and should be considered as an integral part of any future seat belt campaign.

# OVERALL BELT USE NUMBERS MISSISSIPPI 2012

74.3% The baseline or pre-CIOT belt use rate

83.2%

Official, weighted belt use rate for Mississippi

Percent change of 8.9% | Percent increase of 12.0%

How is CLICK IT OR TICKET WORKING?

8.9% Increase in belt use among black males

Increase in belt use among black females 40

20.7% Increase in belt use for Leflore County

3 out of the 4 vehicle types increased in belt use by 10%

13.3% Increase in belt use for pickup truck occupants

# SECTION FOUR: MOTORCYCLE HELMET USE

The final segment of this survey is motorcycle helmet use in Mississippi. Mississippi is fortunate to have an excellent motorcycle helmet law. It is a primary law. All motorcycle riders must wear helmets or they will receive a ticket. As a part of the post-campaign seat belt survey, motorcycle helmet use is also observed during the same time periods and at the same locations as vehicle occupants. There were 287 motorcycle riders observed in 2012, with 253 drivers and 34 passengers.

Motorcycle helmet use has shown a resurgence of use in the United States from 2010 to 2011. Helmet use increased from 54 percent in 2010 to 66 percent in 2011. Mississippi, however, has maintained a consistently high percentage of helmet use. Over the past several years, Mississippi's observed motorcycle helmet use has been in the upper-90 percent range. Once again, the overall observed helmet use for Mississippi in 2012 is 99.3 percent.



<sup>6</sup>NHTSA Traffic Safety Fact – Motorcycle Use in 2011 – Overall Results (DOT HS 811 610)

#### Table 15: Unweighted Motorcycle Helmet Usage in Mississippi

FULL SURVEY OF 168 SITES IN 16 COUNTIES

MOTORCYCLE RIDERS	Number of Drivers	HELMETED DRIVERS	PERCENT HELMETED DRIVERS	Number of Passengers	HELMETED PASSENGERS	PERCENT HELMETED PASSENGERS
Black Males	21	21	100.0%	0	0	-
<b>Black Females</b>	0	0	-	0	0	-
White Males	226	224	99.1%	7	7	100.0%
White Females	6	6	100.0%	26	26	100.0%
Unsure	0	0	-	1	1	100.0%
Total	253	251	99.2%	34	34	100.0%

Table 15 provides a breakdown of 2012 helmet use in Mississippi by gender and race. Notice passenger helmet use is 100 percent, which is expected behavior. White males remains the only category that shows any noncompliance with the helmet law. Note there was no attempt in the survey to judge whether the helmet was legal or illegal.

# D YOU KNOW? Oxford Increase in motorcycle helmet use in the U.S. from 2010 to 2011 99.3 Overall observed helmet use in Mississippi for 2012 Passenger helmet use is Mississippi has maintained A CONSISTENTLY HIGH percentage of helmet use.

# SUMMARY

For over a decade, intense media and enforcement campaigns have been directed towards Mississippians with the intent of increasing their awareness of seat belt laws, promoting highway safety and changing the behavior of those who do not buckle their belts. The Click It or Ticket campaign is conducted over a four week period of earned media, paid media and enforcement. This awareness and enforcement effort is part of the Memorial Day mobilization. The effectiveness of these efforts was evaluated by surveys managed by the Social Science Research Center at Mississippi State University.

In 2012, a new survey design was developed and approved by NHTSA. The new design includes 173 observation sites in 16 Mississippi counties. This new survey was utilized to provide baseline belt use information before the CIOT media and enforcement campaign. The baseline was conducted in April and early May. Being conducted prior to CIOT also provided the state an opportunity to test the performance of the survey design without producing an official seat belt usage rate for the state. This newly designed survey will provide the official seat belt usage rate for Mississippi in 2013. The official Mississippi seat belt rate for 2012 was generated by using a survey design that has been in place since 2008. The 168 site post-CIOT survey was conducted in June.

Overall, the baseline information indicated a 74.3 percent belt use rate. When compared to the 83.2 percent rate in the post campaign survey, Mississippi showed a very favorable change in belt use over the campaign period. In addition, Mississippi has, for the third consecutive year, breached the 80 percent mark in overall belt usage. This means four out of five Mississippi motorists are choosing to drive and ride safer by using seat belts. Perhaps this indicates the seat belt media and enforcement activities of 2012 encouraged this positive behavior in Mississippi. The primary seat belt law was enacted in 2006 and the high level of enforcement accompanying this law has seemed to engrave positive behaviors and attitudes into a greater percentage of Mississippians. The recent step forward over the 80 percent benchmark and the retention of belt use behavior throughout the past few years have undoubtedly saved many lives. Nevertheless, the state must continue to strive forward in the challenge to raise seat belt usage rates up to the current national average of 84 percent.

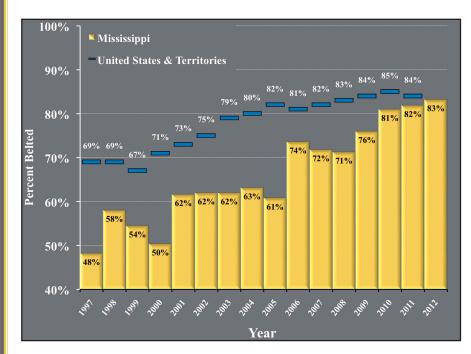
Finally, as is evident by the survey numbers, Mississippi has an excellent usage rate for motorcycle helmets. For a number of years, the helmet use rate has been near 100 percent.

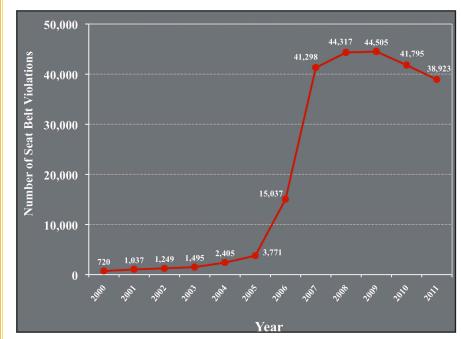
For the third consecutive year, Mississippi has shown a BELT USE RATE OF GREATER THAN 80 PERCENT.

Four out of five Mississippi motorists are choosing to drive and ride safer by using seat belts.

# MISSISSIPPI SEAT BELT USAGE RATES & BELT VIOLATION CITATIONS

The figures below shows a bar graph depicting Mississippi's seat belt usage rates over the past 17 years. From a dismal rate of 46 percent in 1995 to this year's level of 82 percent, the upward trend over this time is apparent.





The top figure on this page shows the seat belt use in Mississippi compared to the national average belt use rates. The bar graph shows Mississippi's annual seat belt usage rates over the past 16 years and the nation's annual belt use rate for the same time frame, except 2012, which is not available at this time. From a dismal rate of 48 percent in 1997 to this year's level of 83 percent, the upward trend over this time period is apparent. Until 2000, the belt use rate remained below half of the Mississippi motoring population. From 2001 to 2005 a relatively flat belt use rate in the lower 60 percent range was exhibited by the state. It wasn't until 2006 when Mississippi enacted a primary seat belt law that provided the catalyst for over a 10 percentage point increase in belt use. More importantly, the trend lines between the national average and Mississippi's belt use rates are converging.

The bottom figure illustrates the number of seat belt citations issued to the motoring public since the year 2000. Beginning in 2006 the number of seat belt citations distributed rose dramatically. From 2007 to 2010 the number of violations issued for noncompliance of the state's seat belt law is shown to surpass 40,000 citations per year. However, from 2009 to 2011, a modest downward trend in the number of belt use citations being written is shown.







DISCRIMINATION BASED UPON RACE, COLOR, RELIGION, SEX, NATIONAL ORIGIN, AGE, DISABILITY OR VETERAN'S STATUS IS A VIOLATION OF FEDERAL AND STATE LAW AND MSU POLICY AND WILL NOT BE TOLERATED. DISCRIMINATION BASED UPON SEXUAL ORIENTATION OR GROUP AFFILIATION IS A VIOLATION OF MSU POLICY AND WILL NOT BE TOLERATED.